

Please add on page 11 line 3 the equation as follows:

A3

(Amended) --  $\partial^2 E_y / \partial t^2 = A \cos(\omega t + \varphi^0) + \Delta + (-)^{1/2} + \text{zero vector} -$

Please add "/detection" on page 11 line 7 as follows:

(Amended) -- extraction /detection for *match-with-rotate* algorithm,  $(-)^{1/2} = \text{yod}$  for *cusp root method* algorithm, --

### In the Claims

Please add "/detected" on page 12 Claim 1 paragraph 2 line 5 as follows:

(Amended) -- digit positions intact where the matching digits were extracted /detected from, which are used --

Please add "and;" on page 12 Claim 1 paragraph 4 line 2 as follows:

(Amended) -- combinations of input values and each combination of seed matrices and;

Please add paragraph 5 on page 12 Claim 1 as follows:

A4

(Amended) -- method of detection. --

Please amend page 13 Claim 4 on lines 4 and 5 as follows:

20  
A5

(Amended) -- segmented by  $x_n - x_{n-1} = r_n$  from which the matching digits were extracted /detected in the differential equation  $m(dL/d\theta) = \pm kL + mg$  are coded in binary to 1.) simulink simulation code and routed to 2.) microcontroller (d-space), for --

Please amend page 13 Claim 5 line 8 as follows:

A6

(Amended) -- positions for data projection of clusters (FIG. 6). --

Please add Claims ~~11~~ <sup>12</sup> and ~~12~~ <sup>13</sup> as follows:

12. The claim of 1 for numeric control and modeling in a signal detector (of an antenna receiver) for electromagnetic wave pattern recognition of the source.

A7

13. The claim of 1 for numeric control and modeling of a  $\pm 0^\circ - 90^\circ - 90^\circ$  non-Euclidean circuit gate of a receiver.